

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017999**Date Inspected:** 03-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Li jia**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder(OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

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The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07210 and 07216.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Bike path weld Components. Total number of welds MT Tested: 56 No's. The weld designations are review as follows:

1. BK004A7-063-005,006,065,066,071,072
2. BK004A6-063-068,069
3. BK004A7-063-003,004,063,064
4. BK004A3-063-012,013,014
5. BK004A6-060-094,095

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6. BK004A7-060-041,042,107,108,039,040,105,106
7. BK004A4-060-042,043,044
8. BK004A4-059-042~044
9. BK004A7-059-041,042,047,048
10. BK004A7-059-039,040,045,046
11. BK004A6-059-094,095
12. BK004A7-059-053,054,059,060
13. BK004A4-059-053,054,068,069,070
14. BK004A7-059-051,052,057,058
15. BK004A6-059-112,113.

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint BK004A6-055-001. Welder is identified as 054459. ZPMC Quality Control (QC) is identified as Mr. Liu fa wen. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2332-TC-P4-F.

FCAW of weld joint BK004A8-055-001. Welder is identified as 500405. ZPMC Quality Control (QC) is identified as Mr. Liu fa wen. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2332-TC-P4-F.

During the QA random visual inspection of the Bike path bottom plate of BK004A2-054, this QA Inspector observed ZPMC welding personnel were performing weld repair on the excavated cracked plug welds areas not according to the approved Critical Welding Repair (CWR) report No.B-CWR-2102. The approved CWR 2102 specifies that before welding, the excavated areas shall be verified with Visual Testing (VT) and MT to ensure that they are free of defect. The excavation depth is approximately 5 mm in depth. ZPMC personnel did not verify the excavated area by MT prior to welding. QA noted that the excavated area has a crack and reminded ZPMC that MT shall be performed prior to weld repair. The weld with the VT crack is BK004A2-054-020 (3rd hole from BKPL6B).ZPMC proceeded with welding without MT. The Bike path number is identified as BK004A2-054.The welds are identified as BK004A2-054-014,015,017,019,020.The thickness of the bottom plate is 6 mm.

This QA generated an incident report on this date for the above issue, for further information see the incident report and attached photos.

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FCAW of weld joint W2-SB10-022-026~031. Welder is identified as 051246. ZPMC Quality Control (QC) is identified as Mr. Wang liyang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint W2-SB9-048-026~031. Welder is identified as 051246. ZPMC Quality Control (QC) is identified as Mr. Wang liyang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer
